

FIG. 1

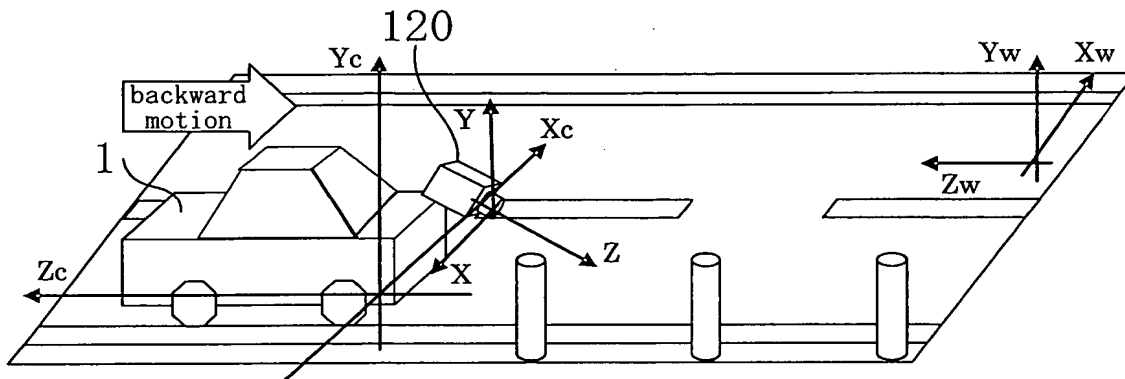


FIG. 2

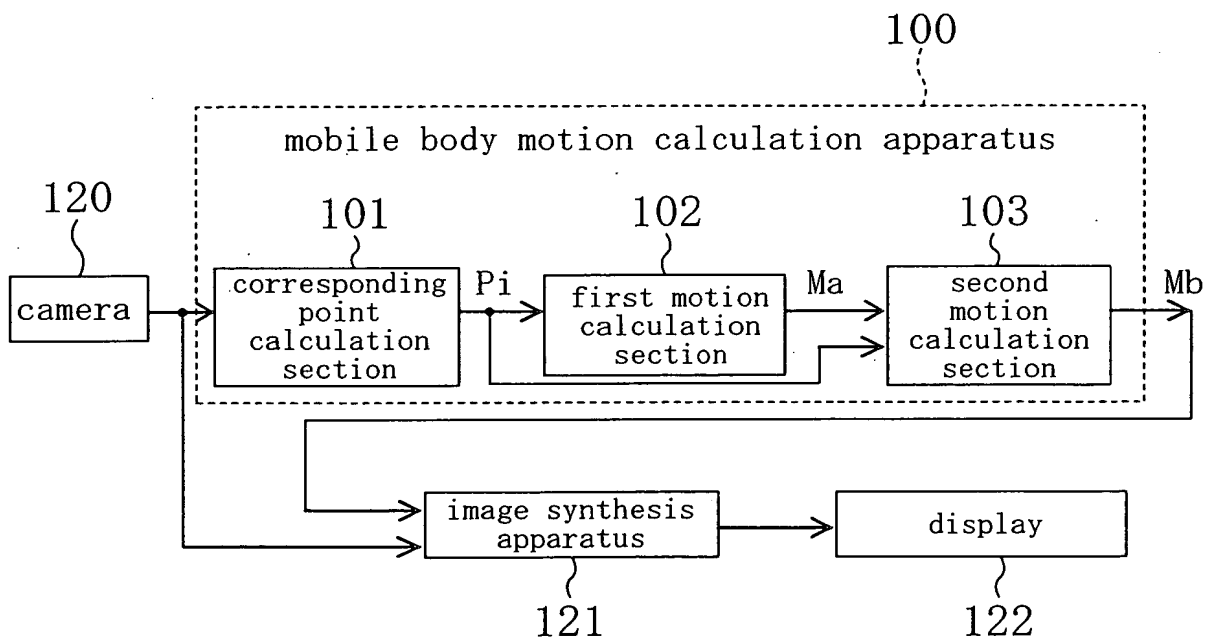
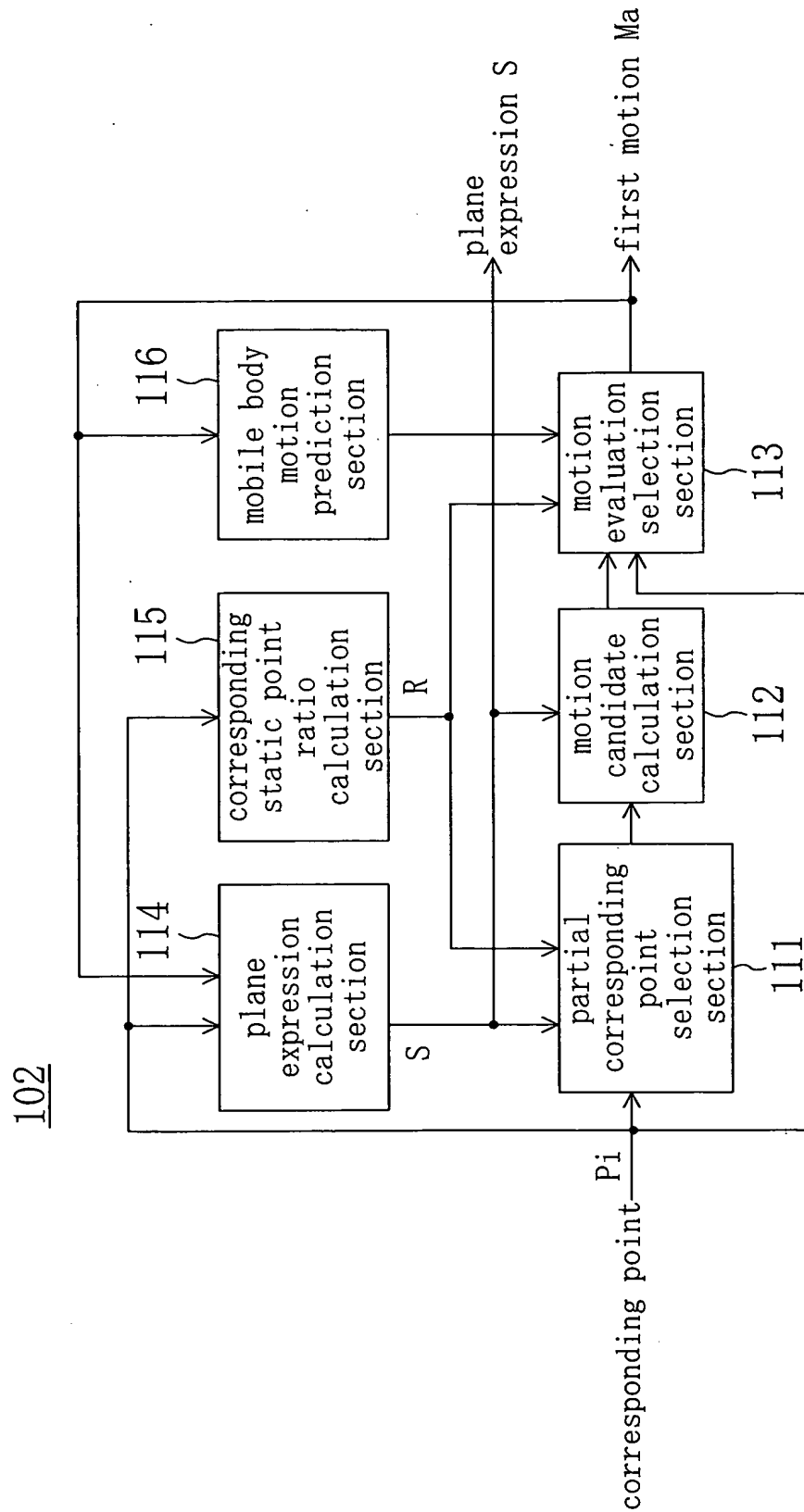


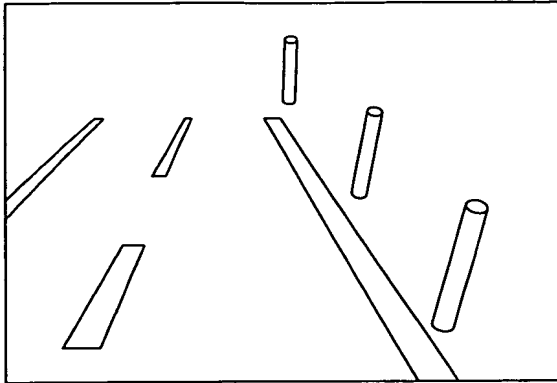
FIG. 3



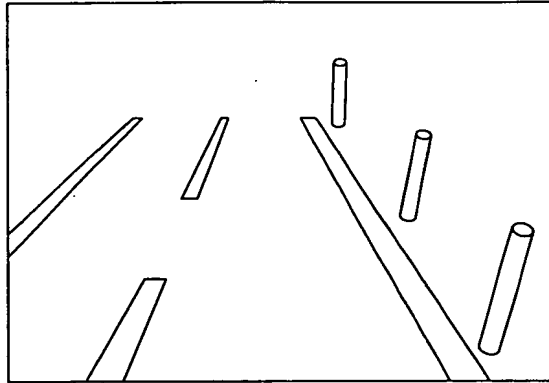
3/14

FIG. 4

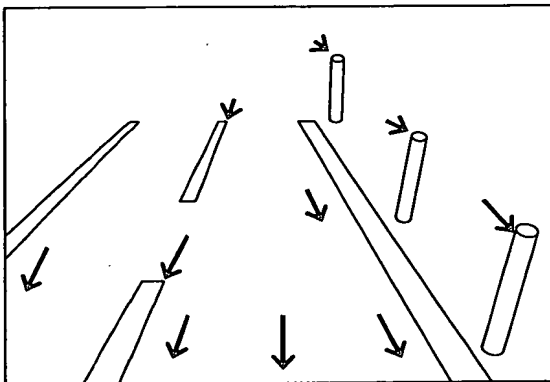
(a) image (time $t-1$)



(b) image (time t)



(c) corresponding point
($t-1 \rightarrow t$)



(d) road surface
plane range

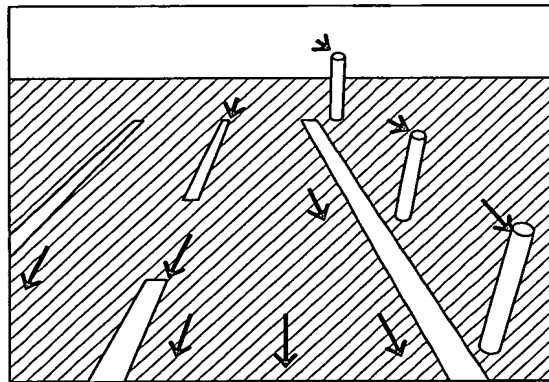
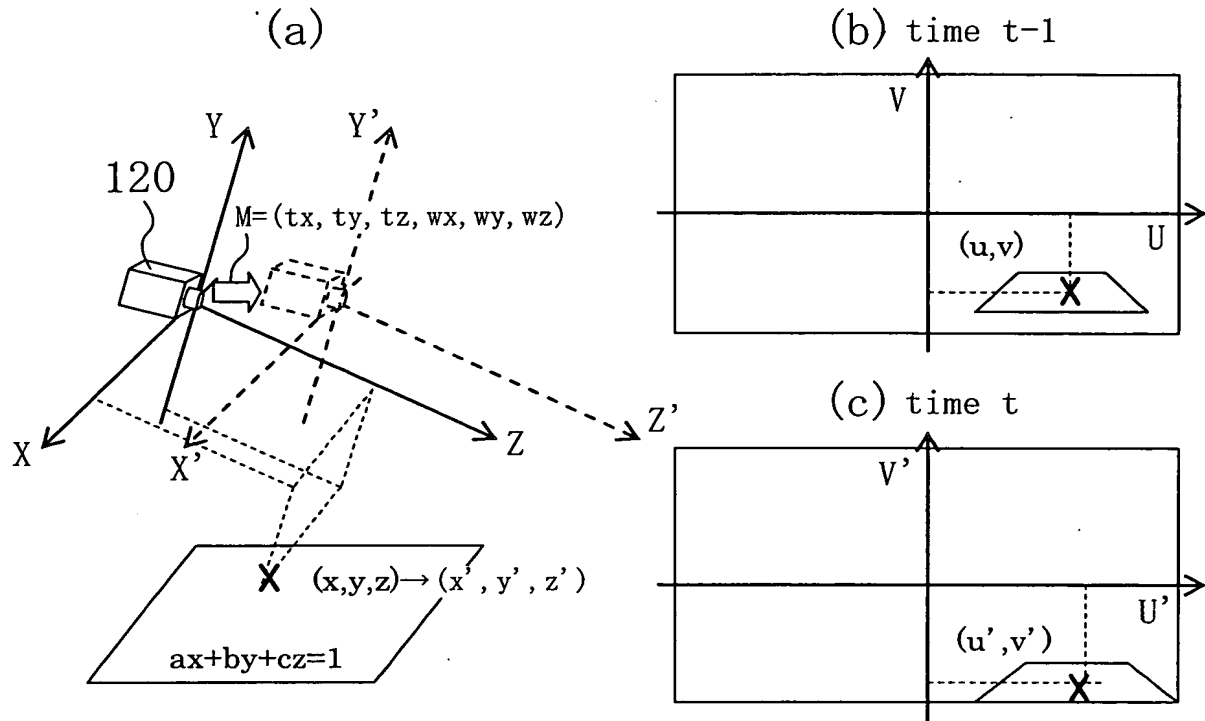


FIG. 5

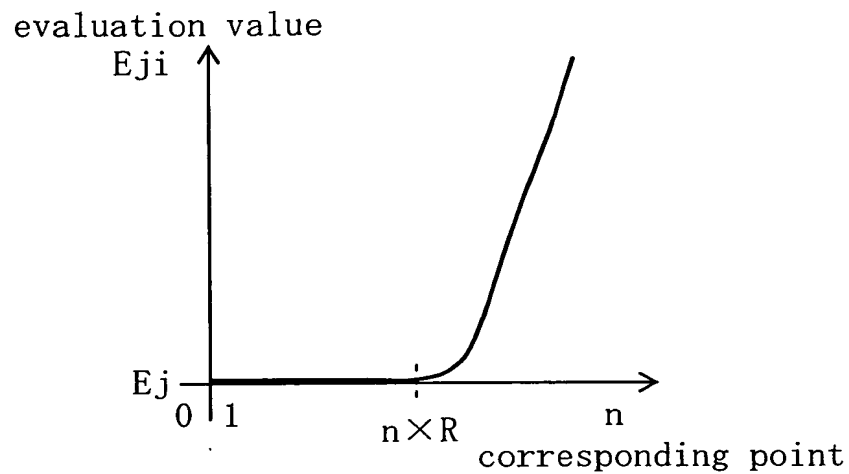


5/14

FIG. 6

(a)

correct camera motion M_j



(b)

incorrect camera motion M_j

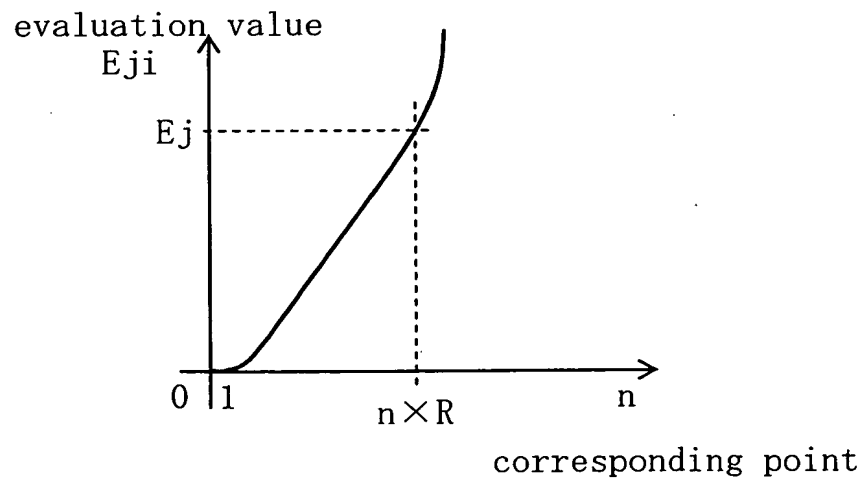
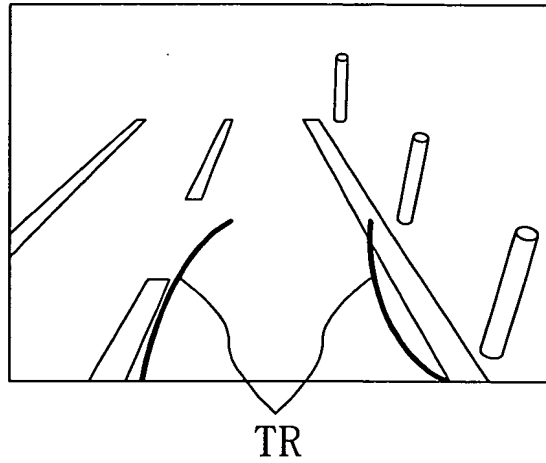


FIG. 7

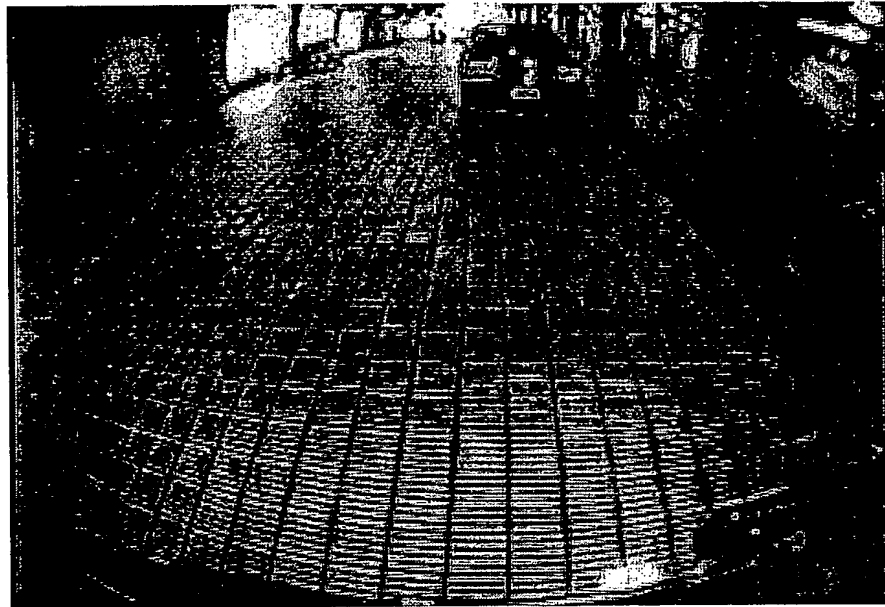


10/540135

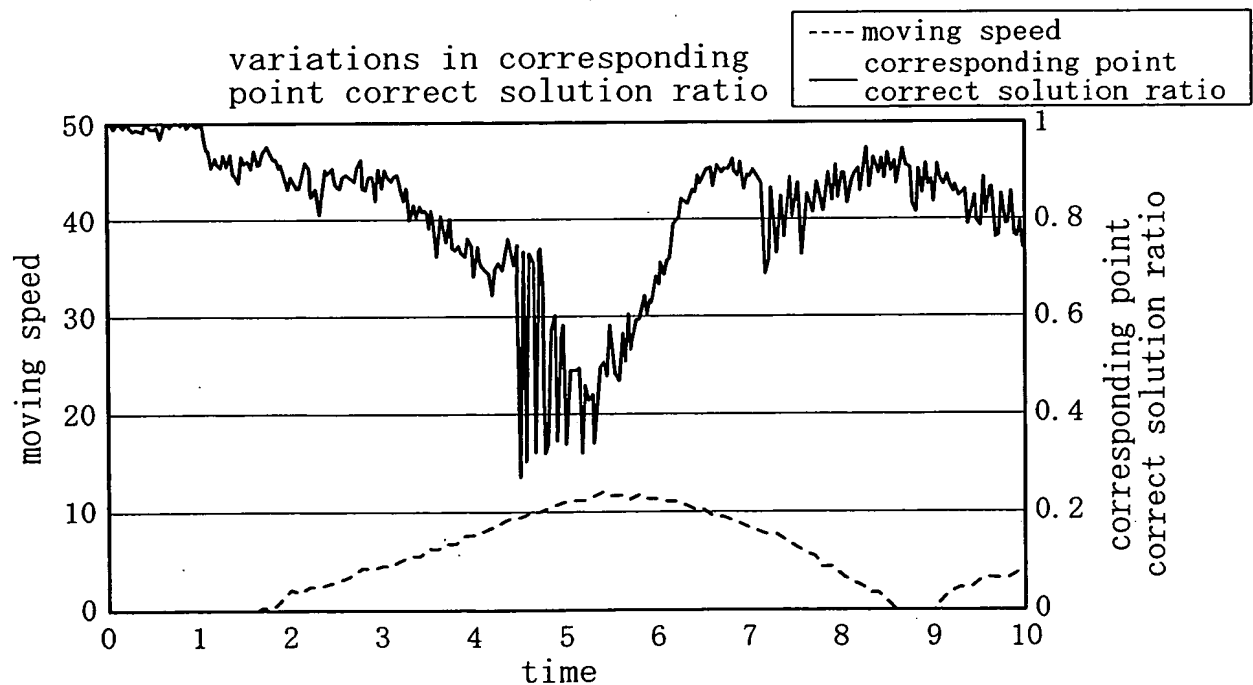
7/14

FIG. 8

(a)



(b)



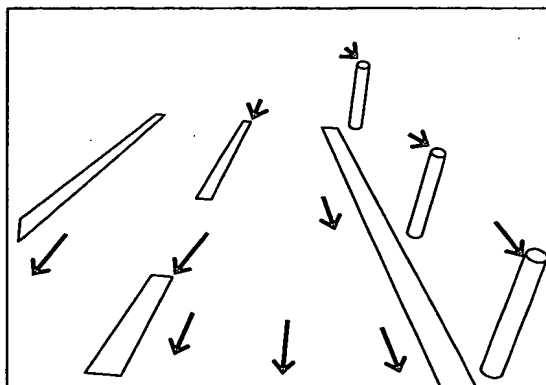
BEST AVAILABLE COPY

8/14

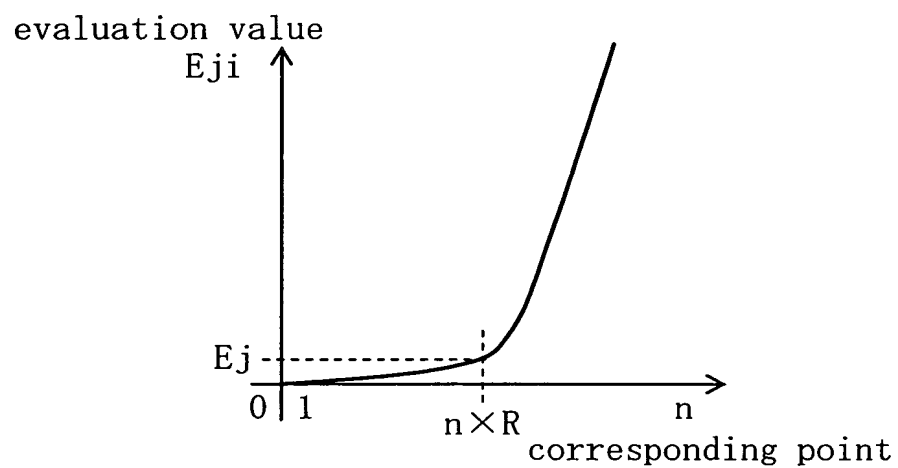
FIG. 9

(a)

road surface is inclined



(b)

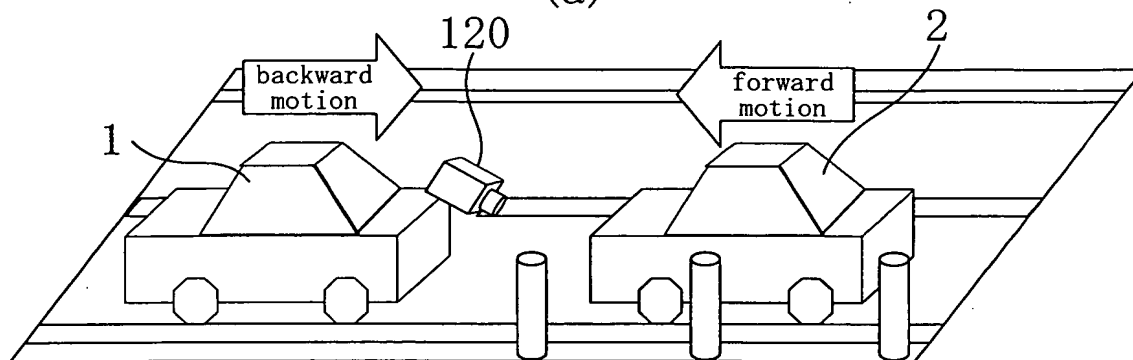


10/540135

9/14

FIG. 10

(a)



(b)

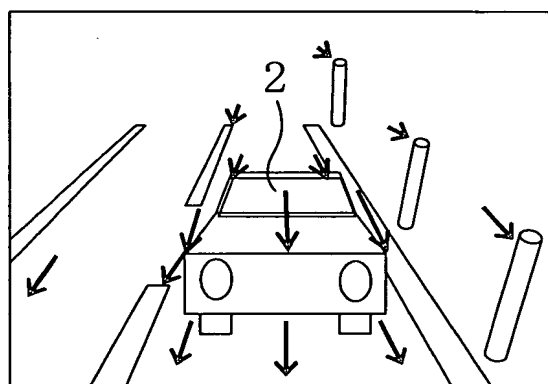
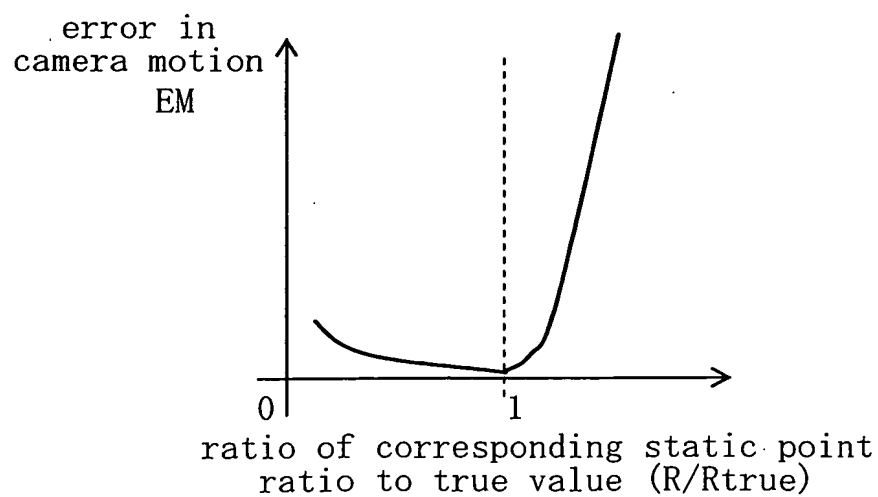


FIG. 11

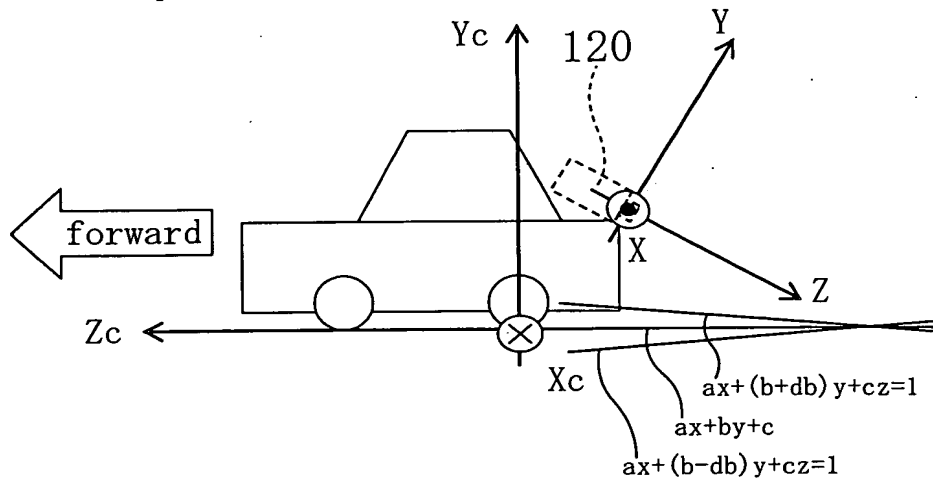


10/14

FIG. 12

(a)

viewpoint coordinate system is used as reference



(b)

middle point of rear wheel which contacts ground is used as reference

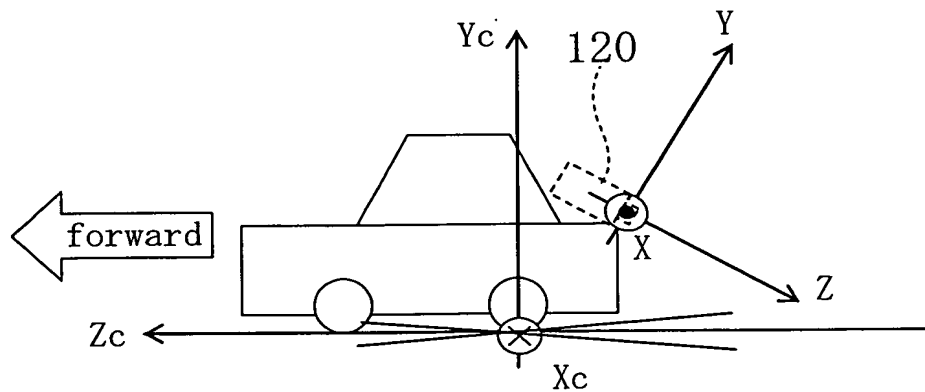


FIG. 13

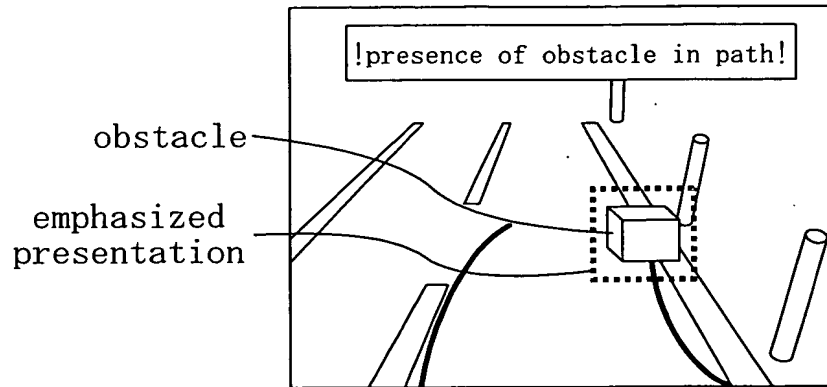


FIG. 14

image of indoor parking lot

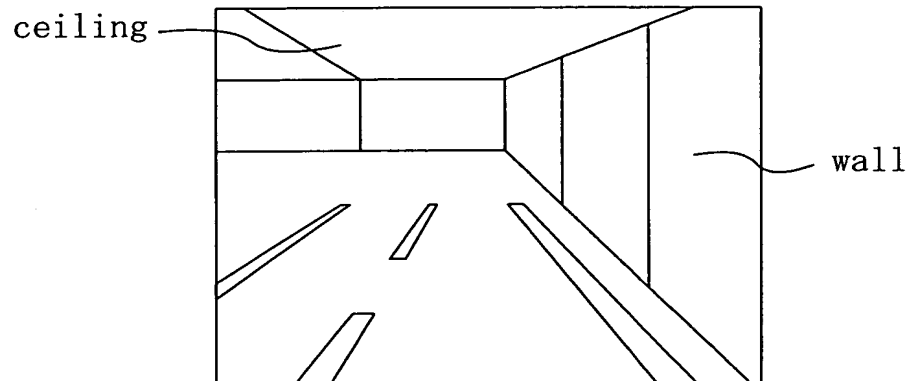
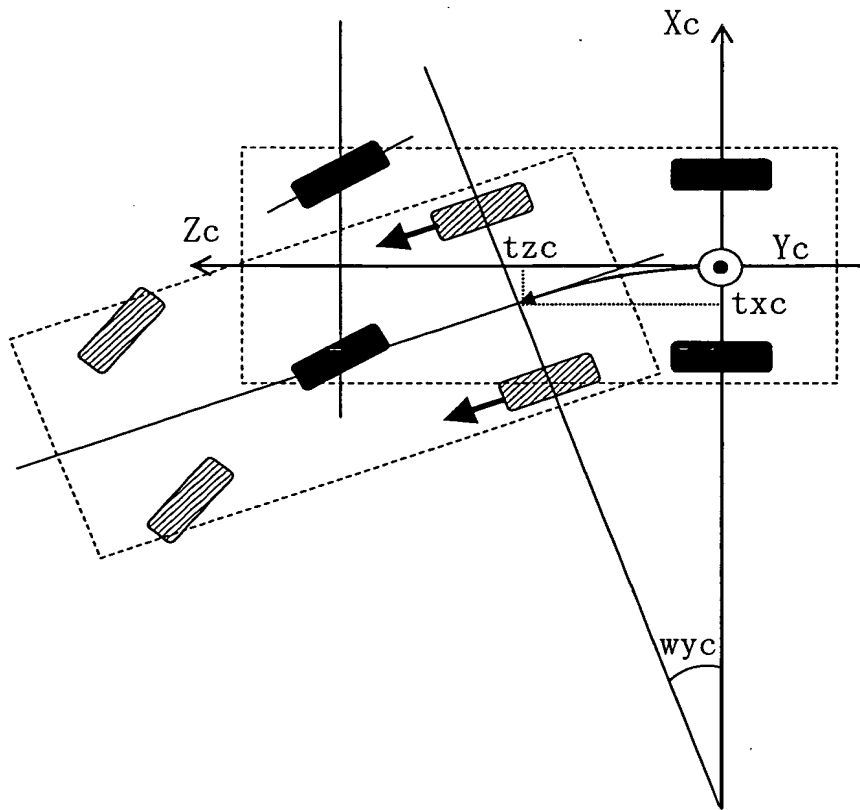


FIG. 15



10/540135

13/14

FIG. 16

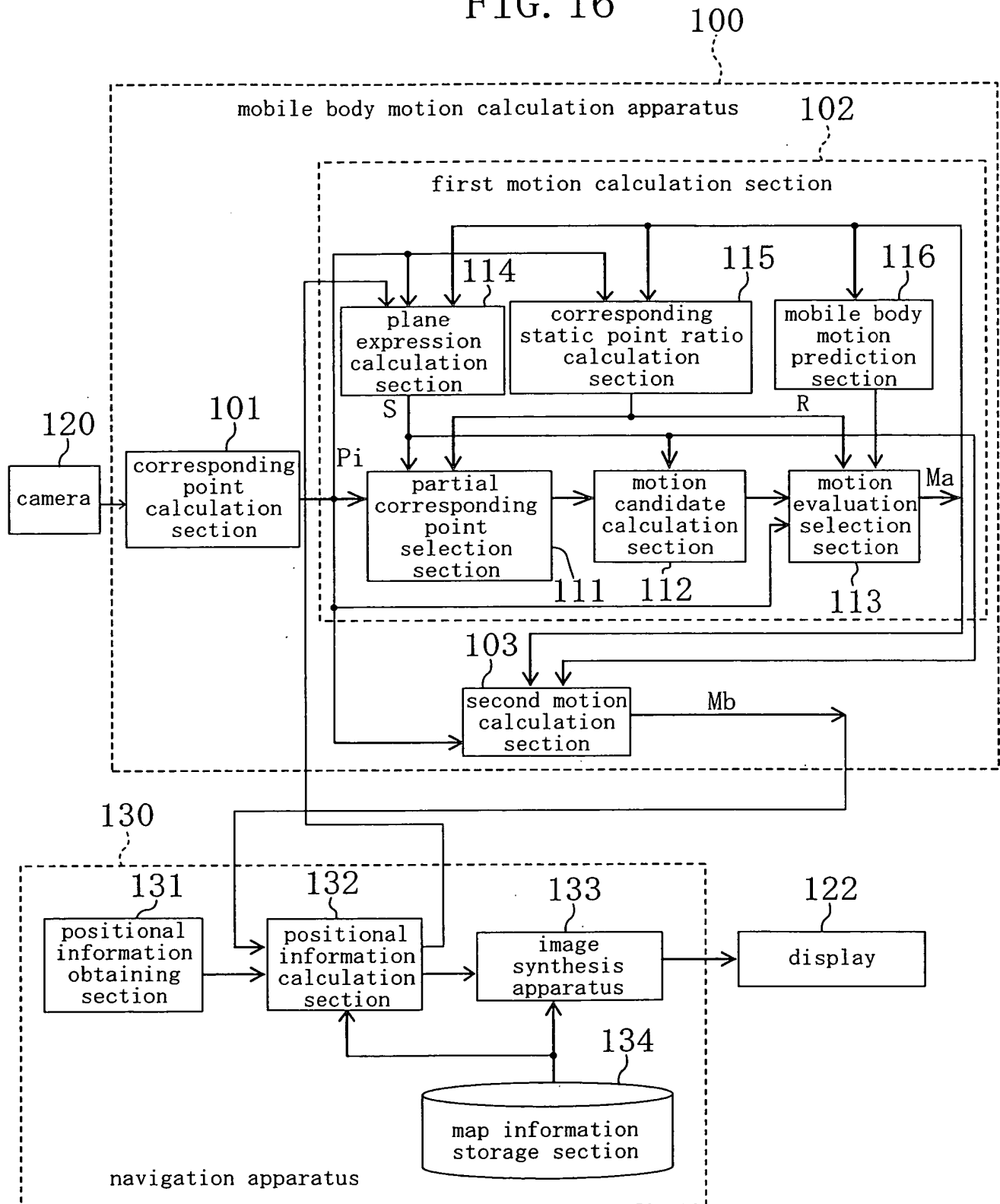


FIG. 17

trajectory of moving vehicle calculated
from images (world coordinate system)

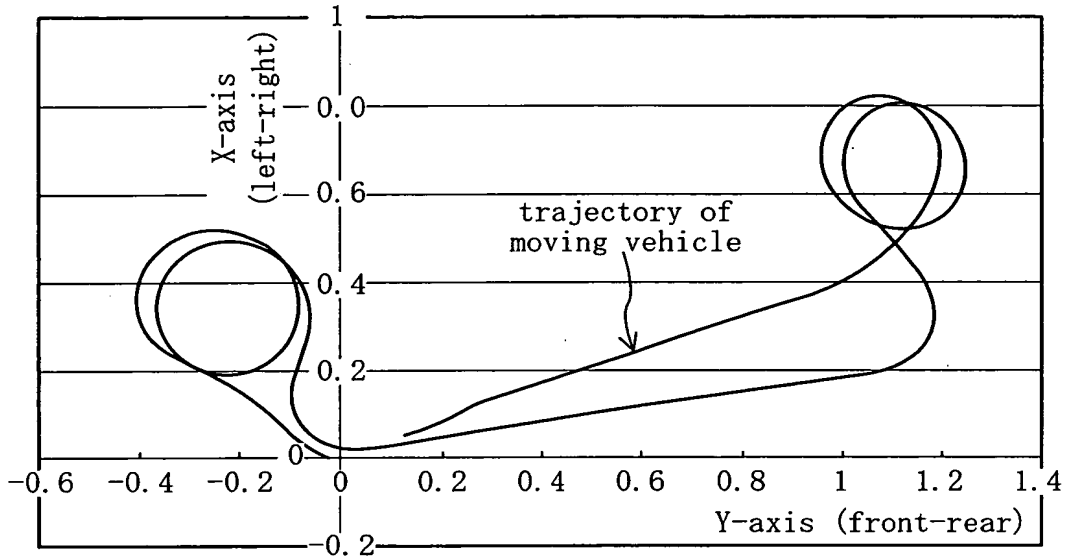


FIG. 18

